upper seat structure wherein said sensor assembly generates a weight signal representative of said weight force.

47. (New) An assembly according to claim 46 including an electrical component mounted to one end of said bending beam for communicating said weight signal to a control unit and a plurality of traces interconnecting said electrical component and said sensor assembly.

48. (New) An assembly according to claim 46 wherein said traces include a second thick film portion formed contiguously with said first thick film portion.

49. (New) An assembly according to claim 48 wherein said first and second thick film portions are screen printed on said bending beam using a thick film material.

50. (New) An assembly according to claim 49 wherein said electrical component, sensor assembly, and traces are simultaneously screen printed on said bending beam using said thick film material.

51. (New) An assembly according to claim 49 wherein said sensor assembly comprises a plurality of grids with associated electronics to form a full-bridge strain gage.

52. (New) An assembly according to claim 51 including an electrical connector cooperating with said electrical component to communicate said weight signal to said control unit.

54. (New) An assembly according to claim 53 wherein said bending beam defines a longitudinal axis and includes an extension portion formed at one end for supporting said electrical connector wherein said electrical connector is coupled to said electrical component via a linear insertion force in a direction generally parallel to said longitudinal axis.

55. (New) An assembly according to claim 50 wherein said central body portion is coplanar with said first and second connection portions and includes a narrowing neck to concentrate strain in said central body portion.

56. (New) An assembly according to claim 55 wherein said first connecting portion includes a first aperture for receiving a first fastener and said second connecting portion includes a second aperture for receiving a second fastener, said first fastener providing sole connection of said beam to said upper seat structure and said second fastener providing sole connection of said beam to said lower seat structure.

57. (New) A method for measuring a weight on a vehicle seat comprising the steps of:

(a) providing a bending beam having a first connection portion engageable with an upper seat structure, a second connection portion engageable with a lower seat structure; and a bendable central body portion extending between the first and second connection portions;

(b) applying a thick film material to the central body portion to form a weight sensor assembly;

(c) measuring a weight force being exerted against the upper seat structure with the weight sensor assembly; and

(d) generating a corresponding weight signal representative of the weight force.

56

57 ~~58~~. (New) A method according to claim ~~57~~ wherein step (b) further includes depositing the thick film material by screen printing.

57

B1 58 ~~59~~. (New) A method according to claim ~~58~~ wherein step (a) further includes providing an electrical component formed on one end of the bending beam for communicating the weight signal to the control unit and a plurality of traces interconnecting the electrical component and the sensor assembly and wherein step (b) further includes applying the thick film material to contiguously form the weight sensor assembly, traces, and electrical component.

58

59 ~~60~~. (New) A method according to claim ~~59~~ including the step of enclosing the electrical component within a protective cover.